

CLAIMS

1. The invention provides a wheeled vehicle which includes:

5 two frames for carrying road wheels, the frames being laterally spaced apart;
a pair of road wheels mounted on each frame for supporting that frame on the
ground, the wheels of each pair being mounted for rotation about operatively more or
less horizontal axes of rotation, and being spaced apart along the associated frame;
and

10 a motor which is connected by a drive train to at least one wheel on each of
the wheeled frames,

the wheeled frames being connected together for synchronous lateral tilting relative to
the vertical, so that the camber angle of each wheel changes in response to tilting of the
frames.

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2. A vehicle as claimed in claim 1, in which each frame has mounted thereon
a front wheel and a rear wheel, the front wheels being operatively connected to a driver
operable steering mechanism for synchronous pivotal displacement about respective
steering axes.

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3. A vehicle as claimed in claim 2, in which the motor is connected by the
drive train to the rear wheels for driving thereof.

4. A vehicle as claimed in claim 2 or claim 3, which includes a seat frame
25 positioned between the wheeled frames, the seat frame being connected to the wheeled

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frames such that the seat frame is clear of the ground and is configured for synchronous tilting with the wheeled frames, the seat frame providing a seat for a driver of the vehicle.

5 5. A vehicle as claimed in claim 4, in which the fore-and-aft directions of each of the wheeled frames and of the seat frame are more or less aligned with the fore-and-aft direction of the vehicle.

10 6. A vehicle as claimed in claim 4 or claim 5, in which the steering mechanism is provided on the seat frame, the steering mechanism being in the form of a motorcycle-type handle bar, and the front wheels of the respective wheeled frames being connected by a steering linkage to the handle bar.

15 7. A vehicle as claimed in claim 6, in which function controls for the vehicle are provided on the handle bar.

8. A vehicle as claimed in claim 7, in which the function controls include a twist grip throttle for the motor and a brake lever for operating brakes on the wheels.

20 9. A vehicle as claimed in any one of claims 4 to 8 inclusive, in which a driven cog is rotatably mounted on each wheeled frame, each driven cog being drivingly connected to the motor and being connected, in turn, to the associated rear wheel by a chain- or belt drive.

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10. A vehicle as claimed in claim 9, in which the motor is carried by the seat frame, the motor being drivingly connected to the respective driven cogs by a pair of half shafts.

5 11. A vehicle as claimed in claim 10, in which the vehicle includes a differential connected in-line in the drive train between the motor and the half shafts, so that the relative speeds of rotation of the driven rear wheels, through the half shafts, are automatically variable during cornering.

10 12. A vehicle as claimed in any of claims 4 to 11 inclusive, in which the wheeled frames and the seat frame are connected together by a plurality of laterally extending link members, each lateral link member being connected to both wheeled frames and to the seat frame, each connection being such as to permit pivotal displacement of the link member relative to the respective frame about a pivot axis
15 which is aligned with the fore-and-aft direction of the vehicle.

13. A vehicle as claimed in claim 12, in which the link members are rigid, so that they remain constant in length irrespective of operative tilting of the frames.

20 14. A vehicle as claimed in claim 13, in which the link members are equal in length and the connection of each link member to the seat frame is positioned midway between the connections of that link member to the respective wheeled frames.

15. A vehicle as claimed in any one of claims 12 to 14 inclusive, in which the
25 link members comprise two link bars which are located at a relatively high level and

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which are spaced apart in the fore-and-aft direction of the vehicle, and a platform member which is located at a relatively low level and provides a support surface for the feet of a driver seated on the seat frame.

- 5 16. A vehicle as claimed in any of claims 2 to 15 inclusive, in which each of the wheeled frames is in the form of a motorcycle frame, the front wheel of each frame being mounted on a fork which is pivotally displaceable about its longitudinal axis, so that the steering axis of each front wheel is provided by the longitudinal axis of the associated fork, suspension for the front wheel being incorporated in damped telescopic
10 struts of the fork, the struts straddling the wheel so that free ends of the struts house an axle of the wheel.

17. A vehicle as claimed in claim 16, in which the rear wheel of each wheeled frame is mounted on a free end of a pivot arm which extends in the fore-and-aft
15 direction of the vehicle and which is pivotally connected at its frontmost end to the associated wheeled frame for pivoting about an operatively more or less horizontal pivot axis, pivotal movement of the pivot arm being sprung and damped.

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